

Remarks

Claims 1-8 were pending in this application. Claims 5-8 are amended herein. Claims 1-4 are canceled without prejudice. One new claim is added herein. No new matter is added. Therefore, **claims 5-8 and 12** are pending. Consideration and allowance of the pending claims is requested.

No new matter has been added by these amendments. Unless specifically stated otherwise, the amendments made herein are not intended to limit the scope of any claim. This filing is appropriate after final rejection because it will not require further search or examination in order for the case to be allowed, it enters suggestions discussed with the Examiner, and/or it places the case in better position for appeal should such become necessary.

Telephone Interview

Applicants thank Examiner McElwain for the courtesy of a telephone interview with their representative, Susan W. Graf, on May 19, 2009. During the telephone interview, the rejections under 35 U.S.C. §§ 102 and 112, second paragraph were discussed. Potential claim amendments were discussed to address these rejections. Applicants believe that this amendment addresses the concerns that were discussed regarding these rejections.

Request for Acknowledgement of Cited References

Applicants note that the references cited on page 1 of the IDS filed on April 9, 2007 were considered by the Examiner on June 16, 2008; however, the references on pages 2-5 of this IDS were not noted as considered. A copy of the partially signed Form 1449 is provided herewith. Applicants respectfully request that the Examiner acknowledge that these references have been considered by returning a fully signed copy of the Form 1449 with the next action.

Claim Rejections – 35 U.S.C. § 112

Claims 1-8 are rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the

invention. Specifically, the Office asserts that the recitation of “without a significant increase in long chain fatty acid components of seed oil” is indefinite as it is unclear what would not be a significant increase in long chain fatty acid. The Office also asserts that this phrase is unclear as to what the level of long chain fatty acids would be compared to. Claims 1-4 are canceled herein, rendering rejection of these claims moot. Applicants request reconsideration in light of the amendments herein.

Applicants assert that the term “significant” is a term that is commonly used in the art and would be clearly understood by one of ordinary skill in the art. When comparing any two sets of data to determine whether there is a difference, it is normal to examine this to a level of statistical significance, since the nature of biological systems is that no two sets of data can be expected to be completely identical. The term “significant” as used in the claims reflects this. Statistical methods for comparing data sets are well known in the art. However, as discussed in the telephone interview of May 19, 2009 and in order to further prosecution, claim 6 is amended to recite that there is “no *statistically* significant increase in long chain fatty acid components of seed oil.” Support for this amendment may be found in the specification, for example at page 19, lines 24-31.

Claim 6 is also amended to recite “introducing into progenitor cells of the plant a *heterologous constitutive promoter operatively linked to a heterologous polynucleotide* that encodes a HIO102 polypeptide...” Support for this amendment may be found in the specification, for example at page 4, lines 16-25; page 6, lines 26-28; and page 15, lines 9-16.

In addition, claim 6 is amended herein to recite “wherein the polypeptide confers a high oil phenotype of increased oil content relative to a plant of the same species not comprising the heterologous constitutive promoter operatively linked to the heterologous polynucleotide, and wherein there is no statistically significant increase in long chain fatty acid components of seed oil relative to seed oil from a plant of the same species not comprising the heterologous constitutive promoter operatively linked to the heterologous polynucleotide ...” As discussed in the telephone interview of May 19, 2009, this amendment clarifies that the oil content is compared to a plant that does not

comprise the heterologous constitutive promoter operatively linked to the heterologous polynucleotide and that the long chain fatty acid components of seed oil are compared to those found in seed oil from a plant that does not comprise the heterologous constitutive promoter operatively linked to the heterologous polynucleotide.

Claim 5, which is a method of producing oil, is amended herein to be independent by including language from claim 6 regarding producing a plant with high oil phenotype. Support for this amendment may be found in the specification, for example at page 7, lines 25-28. Claim 8 is amended herein to depend from claim 6.

Based on the foregoing amendments and discussion, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

Claim Rejections – 35 U.S.C. 102

Claims 1-4 and 6-8 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Jaworski *et al.* (U.S. Pat. No. 6,307,128). Claims 1-4 are canceled herein, rendering rejection of these claims moot. Applicants request reconsideration in light of the amendments herein.

Jaworski *et al.* teach a method of altering the levels of very long chain fatty acids in a plant (*e.g.*, col. 3, lines 10-11; claim 20). In contrast, claim 6 is directed to a method of producing a plant with a high oil phenotype *without* altering the proportion of long chain fatty acid components of seed oil. In addition, as discussed in the telephone interview of May 19, 2009, claim 6 is amended herein to further recite “identifying a transgenic plant that exhibits the high oil phenotype” (*i.e.*, the phenotype of increased oil content where there is no statistically significant increase in the proportion of long chain fatty acid components). Support for this amendment may be found in the specification, for example at page 3, lines 29-34 and page 7, lines 16-21.

New claim 12 is added herein, which specifically recites “wherein there is no statistically significant increase in the *proportion* of long chain fatty acid components of seed oil relative to seed oil from a plant of the same species not comprising the heterologous constitutive promoter operatively linked to the heterologous polynucleotide...” Support for this amendment may be found throughout the specification, for example at page 3, lines 29-34; page 13, lines 27-32; and page 19, lines 24-31. Additional support may be found in the Declaration of Dr. D. Ry Wagner and supporting Exhibit A, which were submitted on December 18, 2008.

The pending claims are clearly distinguished from Jaworski *et al.* and Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b).

Claim Rejections – 35 U.S.C. 103

Claims 1-8 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Jaworski *et al.* (U.S. Pat. No. 6,307,128). Claims 1-4 are canceled herein, rendering rejection of these claims moot.

Claims 5 and 6 are amended as discussed above. Applicants reassert that Jaworski *et al.* **teach away** from production of a transgenic plant wherein expression of SEQ ID NO:2 (or a sequence having at least 95% identity to SEQ ID NO:2) confers a high oil phenotype of increased oil content *without a statistically significant increase in the proportion of long chain fatty acid components of seed oil*, as in the pending claims. As discussed above, Jaworski *et al.* describe a method of altering the levels of very long chain fatty acids in a plant by expressing a sequence identical to SEQ ID NO:2 (*e.g.*, col. 3, lines 10-26; claim 20). Because the teaching of Jaworski *et al.* is directly opposed to that of the present invention, one of skill in the art would not have a reasonable expectation of success in achieving the claimed invention in light of Jaworski *et al.* Therefore, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a).

Conclusion

Based on the foregoing amendments and arguments, the claims are in condition for allowance and notification to this effect is requested. If for any reason the Examiner believes that a telephone conference would expedite allowance of the claims, please telephone the undersigned.

Respectfully submitted,

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